

## Undescribed plants from Guatemala. I.

JOHN DONNELL SMITH.

*VOCHYSIA GUATEMALENSIS*. (Series *Lutescentes*, Warm., Fl. Brasil. xiii.<sup>2</sup> 59.)—Smooth and shining except the puberulous leaf-buds, stipules, rachises and calyx-lobes: purplish branchlets costate-angled by a decurrent line from each stipule, interpetiolar sides concave: stipules persistent, subulate,  $1\frac{1}{2}$  lines long with an acute canescent tip; petioles an inch long; leaves 3-4-verticillate, opposite, or uppermost rarely alternate, oblong-lanceolate, acuminate at each end, 5-6 inches long, less than a third as broad: thyrsi composing leafy panicles, terminal and from upper axils, cylindrical, 4-7 inches long, rachis angulate and sulcate; cincinni approximate, 3-4-flowered, mostly about an inch long without the flowers, peduncles and short pedicels suberect and triquetrous: flower-buds linear, scarcely  $1\frac{1}{2}$  lines broad, slightly recurved, acuminate; calyx sparsely dotted with red glands, anterior lobes broadly ovate and a line long, lateral ones rounder and smaller, posterior lobe 8-10 lines long and reflexed-patent after anthesis with its slender terete deflexed spur half as long as calyx; petals oblong-obovate, the anterior one half as long as calyx and 2 lines broad, the others a little shorter and much narrower; stamen linear-spatulate, nearly twice longer than petals, the 5-lines-long and 1-line-broad anther narrowing at base into the tapering filament; staminodes tipped with a red gland; style not thickened above; stigma minute; capsule (immature) oblong, thrice longer than broad, obtusely trigonal.—Leaves nearly of *V. magnifica* Warm., but longer-acuminate, mucronulate, costal arches less distinct, reticulation more minute, and stipules conspicuous for the series; distinguished better by floral characters.—A lofty tree, not rare in its locality, with vast panicles of shining-yellow flowers, discovered by Mr. H. von Türckheim in the mountain-forests of Pansamala, Dept. Alta Vera Paz, altitude 3,800 feet, June, 1886. (*Plantæ Guatemalenses Tuerckheimianæ*, a John Donnell Smith editæ, 943.<sup>1</sup>) Remarkable as the only species of a large genus, and with a single exception the only representative of its order, that has been found outside of South America.

<sup>1</sup>Sets of this series of plants are in course of preparation for distribution to Gray Herb., Harvard University; Torrey Herb., Columbia College; National Herb., Washington; Kew Herb., London; Muséum d'hist. nat. de Paris; Königl. botanisches Museum, Berlin.



HAMELIA CALYCOSA.—A shrub 9-12 feet high, glabrate: stipules filiform, 2 lines long, with a ciliated interpetiolar line: leaves ternate, lanceolate, 2-4 inches long, one fourth as broad, acuminate produced, finely attenuated into a short pubescent petiole, margins revolute, punctate and with scattered cystoliths, veins not reticulate: cymes pubescent, compound, trichotomous, umbelliform; lobes of turbinate calyx linear to oblong,  $2\frac{1}{2}$  lines long and equalling the tube, sinuses truncate; corolla yellow, ventricose-campanulate, 12-14 lines long, narrowed below into a cylindrical tube 3 lines long; anthers mucronately produced at base, four times longer than the complanate filament; stigma about equalling style; capsules glabrate, elliptical, 10-costate, 5 lines long, half as broad.—Resembling *H. ventricosa* Sw., but flowers differing by the calyx-lobes large for the genus, short broad filaments, and long stigma.—Pansamala, alt. 3,800 feet, June, 1885. (Pl. Guat. Tuerckh., a I. D. S. edit., 454.—De Tüerckh. Fl. Guat. Edit. Keck 454.)

ARDISIA PECTINATA.—Arboreous: branchlets knotted, warty, pitted with large scars of fallen petioles: leaves crowded at end of branchlets, pergameneous, pellucid, nitidous, oblong to oblanceolate, 10-13 inches long, 4-5 inches broad, abruptly short-acuminate, cuneately narrowed to a channeled petiole half an inch long, margins finely pectinate throughout by excurrent nerves, lineolate-glandulose beneath, reticulately veined, with free veinlets, the 20-22 stronger lateral costæ joining in two series of conspicuous arches and a less distinct marginal one: panicle terminal, nearly sessile, ferruginous pubescent, broadly pyramidal, about equaling the leaves, rachises angulate and sulcate, 5-merous flowers subumbellately racemose at the end of tertiary branches, linear-bracted spreading pedicels 4 lines long: calyx-lobes ovate, 1 line long, 4-nerved, ocellate and at length glandular-thickened beneath, margins scariose; corolla-segments rose-colored, broadly ovate-lanceolate, obtuse,  $2\frac{1}{2}$  lines long, reflexed, 4-nerved, corrugate above, margins scariose and undulate, æstivation dextrorsely convolute and contorted; stamens two-thirds as long as corolla, oblong apiculate anthers thrice longer than filament, connective not dilated above, cells dehiscing by elliptical apical pores one-fourth their length; style straight, flat tapering, a little exceeding the stamens; ovary ovoid, rubro-punctate, 15-20-ovulate.—Related to *A. pellucida* CErst. as described without



flowers.—Forests of Pansamala, alt. 3,800 feet, June, 1886. (Pl. Guat. Tuerck., a I. D. S. edit., 942.)

MYRIOCARPA HETEROSPICATA.—Monœcious: a shrub with pale smooth verrucose branches: leaves glabrate except the ciliate veins and axils of under surface, lanceolate-acuminate, 3–5 inches long, less than a third as broad. narrowed to a pubescent petiole 10–16 lines long, margins entire or with a few callose points, tri- or tripli-nerved with 2–3 pairs above the middle, loosely reticulate beneath, above conspicuously beset with cystoliths not radiately arranged: spikes unisexual, approximate, single in the axils, secund, forking once shortly above the peduncle, the closely-flowered staminate spike about a third as long as the loosely-flowered 6–9-inches-long pistillate one: male flowers 4-merous, perianth-segments roundish and marked with cystoliths, rudiment of ovary indistinct and peltate; female flower sessile in a 2-phyllous calycle.—Distinct by its spikes not androgynous as in the only other monœcious species, *M. bifurca* Liebm. The absence of both hairs and glands, as radiating points for cystoliths, is also special.—Forests of Pansamala, alt. 3,800 feet, March, 1886. (Pl. Guat. Tuerck., a I. D. S. edit., 892.)

NEPHRODIUM TUERCKHEIMII.—Rhizome stout, creeping, forking: stipes loosely clustered, ascending at base, 2–2½ feet long, a third of an inch thick, stramineous, pubescent, densely clothed throughout with brown triangular-lanceolate patent scales 3–4 lines long with a punctiform cellulation: frond oblong-acuminate, 3–4 feet long, half as broad, subcoriaceous, strigillose or glabrate above, paler and pilose beneath; main rachis thickly paleaceous, secondary ones with smaller scattered scales; pinnae closely 35–40-jugate below the pinnatifid apex, linear-tapering, the lower ones not reduced, 16–20 lines broad, cut down to within a sixth of the space to the midrib; segments 60–70-jugate, linear-oblong, 8 lines long, 2 lines broad, oblique, acutish, margins revolute, veins 18–20-jugate with the lowest one terminating at the sinus; basal segments of lower pinnae enlarged to 17 lines long and 8 lines broad, ovate-lanceolate, pinnatifid: sori submarginal, small, 9–12 to the series, persistent indusium reniform and hirsute.—Allied to *N. patens* Desv., and especially to the var. *stipulare* Bak. (*Aspidium stipulare* Willd.), but differing by the chaffy stipe and rachises, deeply cut pinnae, numerous segments and veinlets with sori nearer



the margin.—Swamps near Coban, Alta Vera Paz, alt. 4,300 feet, September, 1885. (Pl. Guat. Tuerck., a I. D. S. edit., 704.)

**NEPHRODIUM FENDLERI**, Hook., var. **PAUCIPINNATUM**.—Rhizome short, thick, erect; scales matted, blackish, lanceolate, 4-5 lines long, cells punctiform; rootlets with a heavy brown tomentum: stipes few in the crown, scaly at base, smooth, stramineous, 2 feet long, thick as a crow's quill: frond about as long as stipe, quite smooth throughout, minutely bullate-punctate; pinnae 8-14, not in pairs, 8-10 inches long, 15-20 lines broad, terminal one distinct and not larger than the lateral, caudate entire apex 2 inches long, cut almost half-way to the rachis into 20-24 lobes; veinlets 10-12-jugate, only two or three from adjoining groups uniting at or below the sinus: sori on each veinlet, those above the sinus marginal; indusium pallid, not corrugate, reniform, center depressed, sinus open.—Prof. Eaton has examined this fern, and advises that it comes very close to his *Aspidium Fendleri* (Mem. Ac. Sc. viii. 210), but has fewer pinnae. In that respect as well as others the numerous specimens are uniform.—Rock-crevices in Petet, near Coban, alt. 4,300 feet, September, 1885; copses, Pansamala, alt. 3,800 feet, July, 1886. (Pl. Guat. Tuerck., a I. D. S. edit., 767, 667.)

### Notes on Umbelliferae of E. United States. V.

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(WITH PLATE V.)

[In addition to the collections mentioned in the April GAZETTE, we have now to add those belonging to Brown University. Prof. W. W. Bailey has thus kindly put at our disposal, not only his own large collection of Umbelliferae, but also those of Olney and Bennett.]

**THASPIUM** Nutt.—Fruit ovoid to oblong, slightly flattened dorsally: carpel with 5 primary ribs, 3 or 4 or all of them strongly winged: oil-ducts solitary in the intervals, two on the commissural side: seed-section round or somewhat dorsally flattened, indented beneath the oil-ducts: stylopodium wanting; styles long (figs. 57-62).—Perennials (2 to 5 ft. high), with ternately divided leaves and broad serrate or toothed leaflets (or lower leaves simple), mostly yellow flowers, and all the fruit pedicelled.—The species of *Thaspium* are in great confusion. In Gray's Manual *T. aureum* Nutt. and